

Applicant Jay M. Short et al.
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Amendment to the Claims:

Please amend the claims as follows:

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

Claim 18 (currently amended): A method to produce a foodstuff [[containing]] comprising a [[microbial]] a polypeptide having a phytase activity comprising:

(a) providing a [[plant]] cell [[, plant part or plant that contains]] comprising an isolated or a recombinant [[expression vector comprising a]] phytase-encoding nucleic acid having a nucleotide sequence selected from the group consisting of

(i) a sequence as set forth in SEQ ID NO: 1, [[and]]

(ii) a sequence as set forth in SEQ ID NO: 1, wherein T can also be U; and

(iii) a nucleic acid encoding a polypeptide as set forth in SEQ ID NO:2 or a phytase having a sequence as set forth in SEQ ID NO:2 with conservative amino acid substitutions, wherein conservative amino acid substitutions comprise replacements, one for another, among the aliphatic amino acids Ala, Val, Leu and Ile, or, interchange of the hydroxyl residues Ser and Thr, or, exchange of the acidic residues Asp and Glu, or, substitution between the amide residues Asn and Gln, or, exchange of the basic residues Lys and Arg, or, replacements among the aromatic residues Phe, Tyr, or any combination thereof, or active fragments thereof;

(b) culturing the [[plant]] cell [[, plant part or plant]] under conditions wherein said nucleic acid is expressed as a polypeptide having a phytase activity; and

(c) converting said cell plant cells, plant parts or plants into a composition suitable for a foodstuff, wherein the foodstuff contains phytate and the phytase.

Claim 41 (currently amended): The method of claim [[18]] 85, wherein the ~~recombinant expression vector comprising the~~ nucleic acid encoding said phytase is within a host cell.

Claim Listing

Claims 1-17 [cancelled]

-- 18. (Four times amended) A method to produce a foodstuff containing a microbial phytase comprising:

- a) providing a plant cell, plant part or plant that contains a recombinant expression vector comprising a phytase-encoding nucleic acid having a nucleotide sequence selected from
 - i) SEQ ID NO: 1, and
 - ii) SEQ ID NO: 1, wherein T can also be U;
- b) culturing the plant cell, plant part or plant under conditions wherein said nucleic acid is expressed as a polypeptide; and
- c) converting said plant cells, plant parts or plants into a composition suitable for foodstuff, wherein the foodstuff contains phytate and the phytase.

Claims 19-40 [cancelled]

41. (Amended) The method of claim 18, wherein the recombinant expression vector comprising the nucleic acid encoding said phytase is within a host cell.

42. (Amended) The method of claim 18, wherein said phytase-encoding nucleic acid is operably linked to a polynucleotide encoding a signal peptide.

43. (Amended) The method of claim 41, wherein the nucleic acid is operably linked to a transcription control sequence operable in said plant cells, plant parts or plants.

44. The method of claim 43, wherein the control sequence comprises a tissue-specific promoter that is specific for the plant cells, plant parts or plants.

45. The method of claim 43, wherein the control sequence comprises a constitutive promoter.

46. (Amended) The method of claim 18, wherein the phytase catalyzes liberation of inorganic phosphate from the phytate in the foodstuff.

47. The method of claim 46, wherein the liberation occurs after the ingestion of said foodstuff by a recipient organism.

48. The method of claim 46, wherein the liberation of the inorganic phosphate from the phytate in said foodstuff occurs in part prior to and in part after the ingestion of said foodstuff by a recipient organism.

49. (New) The method of claim 46, wherein the liberation of the inorganic phosphate from the phytate in said foodstuff occurs prior to the ingestion of said foodstuff by a recipient organism.

50. (New) The method of claim 18, further comprising purifying the expressed polypeptide.

51. (Amended) The method of claim 18, wherein the plant comprises seeds containing the phytase encoded by a nucleic acid having the nucleotide sequence as set forth in SEQ ID NO:1 to be used to catalyze phytate-hydrolyzing reactions.

52. (Amended) The method of claim 18, wherein the foodstuff is for a non-ruminant animal.

53. (Amended) The method of claim 18, wherein the foodstuff is for a monogastric animal.

54. (New) The method of claim 18, wherein the plant cells, plant part, or plant is of a dicotyledonous species.

55. (Amended) The method of claim 18, wherein the plant cells, plant part, or plant is of a monocotyledonous species.

56. (Amended) A method to produce a foodstuff containing a microbial phytase comprising:

- a) providing a plant cell, plant part or plant that contains a recombinant expression vector comprising a phytase-encoding nucleic acid having a nucleotide sequence selected from
 - i) a sequence encoding a polypeptide sequence as set forth in SEQ ID NO:2 and
 - ii) a sequence encoding the polypeptide sequence as set forth in SEQ ID NO:2, wherein T can also be U;
- b) culturing the plant cell, plant part or plant under conditions wherein said nucleic acid is expressed; and
- c) converting said plant cells, plant parts or plants into a composition suitable for foodstuff, wherein the foodstuff contains phytate and the phytase.

57. (Amended) The method of claim 56, wherein the recombinant expression vector comprising the nucleic acid encoding said phytase is within a host cell.

58. (Amended) The method of claim 56, wherein said phytase-encoding nucleic acid is operably linked to a polynucleotide encoding a signal peptide.

59. (Amended) The method of claim 57, wherein the nucleic acid is operably linked to a transcription control sequence operable in said plant cells, plant parts or plants.

60. (New) The method of claim 59, wherein the control sequence comprises a tissue-specific promoter that is specific for the plant cells, plant parts or plants.

61. (New) The method of claim 59, wherein the control sequence comprises a constitutive promoter.

62. (Amended) The method of claim 56, wherein the phytase catalyzes liberation of inorganic phosphate from the phytate in the foodstuff.

63. (New) The method of claim 62, wherein the liberation occurs after the ingestion of said foodstuff by a recipient organism.

64. (New) The method of claim 62, wherein the liberation of the inorganic phosphate from the phytate in said foodstuff occurs in part prior to and in part after the ingestion of said foodstuff by a recipient organism.

65. (New) The method of claim 62, wherein the liberation of the inorganic phosphate from the phytate in said foodstuff occurs prior to the ingestion of said foodstuff by a recipient organism.

66. (New) The method of claim 56, further comprising purifying the expressed polypeptide.

67. (Amended) The method of claim 56, wherein the plant comprises seeds containing the phytase encoded by a nucleic acid having a sequence as set forth in SEQ ID NO:1 to be used to catalyze phytate-hydrolyzing reactions. --

68. (Amended) The method of claim 56, wherein the foodstuff is for a non-ruminant animal.

69. (Amended) The method of claim 56, wherein the foodstuff is for a monogastric animal.

70. (New) The method of claim 56, wherein the plant cell, plant part, or plant is of a dicotyledonous species.

71. (New) The method of claim 56, wherein the plant cell, plant part, or plant is of a monocotyledonous species. --

-- 72. (New) The method of claim 18, wherein the foodstuff is an animal feed.

73. (Amended) The method of claim 46, wherein the foodstuff is an animal feed.

74. (Amended) The method of claim 52, wherein the foodstuff is an animal feed.

75. (Amended) The method of claim 53, wherein the foodstuff is an animal feed.

76. (New) The method of claim 56, wherein the foodstuff is an animal feed.

77. (Amended) The method of claim 62, wherein the foodstuff is an animal feed.

78. (Amended) The method of claim 68, wherein the foodstuff is an animal feed.

79. (Amended) The method of claim 69, wherein the foodstuff is an animal feed.